#### DEPARTMENT OF CALIFORNIA HIGHWAY PATROL

#### INITIAL STATEMENT OF REASONS

TITLE 13, CALIFORNIA CODE OF REGULATIONS, DIVISION 2, CHAPTER 6.5, ARTICLE 3, ADD SECTION 1217.2 AND ARTICLE 8, ADD SECTION 1263.2

# CHARTER PARTY CARRIER BUS SAFETY (CHP-R-2017-06)

#### **PROBLEM**

In April of 2014, a collision between a truck-tractor and semi-trailer combination, and a bus occurred in Orland, California. The crash resulted in the tragic loss of eight bus passengers' lives attributable to the initial impact and subsequent smoke inhalation. Due to the smoke within the bus, many passengers' ability to escape was hindered by poor visibility and insufficient interior lighting. Following the collision, the National Transportation Safety Board conducted an investigation and made recommendations for safety improvements, including improvements in vehicle design, to facilitate passenger evacuation. As a result of the investigation, Senate Bill 247 (Lara, Statutes of 2016, Chapter 705) was signed into law which mandated the implementation of safety improvements on buses operated by charter party carriers of passengers. The new law added Division 12, Article 3.6, commencing with Section 27425 CVC and Section 34505.8 CVC. This regulatory rulemaking implements standards and criteria for safety improvements in vehicle design to facilitate the evacuation of passengers in an emergency.

# PURPOSE AND NECESSITY OF REGULATIONS

Section 2402 of the California Vehicle Code (CVC) authorizes the Commissioner of the California Highway Patrol (CHP) to make and enforce regulations as necessary to carry out the duties of the CHP. Section 34501 CVC requires the Department to adopt reasonable regulations that, in the judgment of the Department, are designed to promote the safe operation of vehicles described in Section 34500 CVC including, but not limited to, tour buses operated by charter party carriers of passengers. As the result of an April 2014 horrific crash in Orland, CA, which resulted in the tragic loss of eight bus passengers' lives, the Legislature put forth statute contained in Sections 27425 and 34505.8 CVC to improve passenger safety. Section 27426 CVC requires the CHP to establish by regulation, standards and criteria for the implementation of emergency lighting fixtures, as required by Section 27425 CVC, for a charter bus, described in Section 5363(b)(1) of the Public Utilities Code (PUC), that is designed to carry 39 or more passengers, and is manufactured on or after July 1, 2020. Additionally, Section 34505.8 CVC requires the CHP to establish by regulation, standards and criteria for the implementation of safety equipment and emergency exit instructions for passengers of a charter bus, described in

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Section 5363(b)(1) PUC, that is designed to carry 39 or more passengers. This regulatory action is in response to those statutory mandates.

## **BENEFITS OF THE REGULATION**

These regulations are critical to the protection of public and passenger transportation safety. The regulations clarify new requirements that will protect passengers in these vehicles from catastrophic incidents like the one that occurred in 2014. These requirements include specifications for lighting fixtures that will turn on automatically in the event of an impact or collision for buses operated by charter party carriers of passengers, and guidance on providing oral and written or video instructions to all passengers on the safety equipment and emergency exits on the vehicle prior to the beginning of any trip. These standards will meet a critical public safety need by ensuring that vehicle design facilitates the evacuation of passengers in an emergency.

This proposed regulatory action will provide a nonmonetary benefit to the protection and safety of public health, employees, and the environment. The changes to the application of the regulation are a response to existing statute.

#### **SECTION BY SECTION OVERVIEW**

Title 13 California Code of Regulations, Division 2, Chapter 6.5, Motor Carrier Safety, Article 3, General Driving Requirements

Section 1217.2. Charter Bus Passenger Safety Information.

**New Subsection** (a) is added to clarify the applicability of new Section 1217.2. The subsection includes reiteration of statutory verbiage contained in Section 34505.8 of the CVC, in order to clarify the requirements imposed by the section. New Section 1217.2 imposes no additional requirements.

**New Subsection** (b) is added to make specific definitions and clarify terms and phrases contained in subsection (a), in order to facilitate compliance with requirements contained in Section 34505.8 CVC. The CHP has determined this clarification and level of specificity is the most effective method to facilitate compliance with the applicable requirements.

**New Subdivision** (b)(1) is added to clarify the phrase "all passengers" as used in subsection (a). This clarification is necessary to ensure each passenger transported in vehicles described in subsection (a) appropriately receives the passenger safety information required by the subsection.

New Subdivision (b)(2) is added to clarify when the passenger safety information, required by subsection (a), is required to be provided. This is necessary to ensure the required safety information is provided in a timely manner and each passenger receives the information before transportation begins, without regard to when the passenger boards the vehicle to begin the trip.

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The CHP has determined this clarification is the most effective method to ensure timely dissemination of passenger safety information required by Section 34505.8 CVC.

**New Subdivision** (b)(3) is added to specify that any door, window, roof exit, or other means by which a passenger could exit the vehicle is included in the requirement contained in subsection (a), for passenger demonstration of the location and operation of all exits. The CHP has determined this is the most effective method to ensure each passenger receives safety information regarding the location and operation of every escape route.

**New Subdivision** (b)(4) is added to specify the format of the written instructions provided pursuant to Section 34505.8 CVC. The CHP has determined this level of clarification is the best method to ensure that written safety instructions, provided to passengers to ensure escape in the event of an emergency, deliver clear and legible instructions, and remain in good, legible condition with repeated passenger handling.

#### Article 8, General Equipment Requirements.

### Section 1263.2. Charter Party Carrier Bus Safety.

**New Subsection** (a) is necessary to clarify the type of buses subject to these regulations. These include buses manufactured on or after July 1, 2020, designed for carrying 39 or more passengers including the driver, and operated by a charter party carrier of passengers. The subdivision restates, in part, verbiage contained in Section 27425 CVC, in order to make clear which buses are subject to the requirements, and that the specified buses may not be operated unless properly equipped and in compliance with the applicable requirements.

New Subdivision (a)(1) is necessary to make clear the conditions contained in Section 27425 CVC. Specifically, that emergency lighting fixtures installed in specified buses must illuminate under all conditions of impact, collision, or rollover, and under all conditions of bus operation and orientation, including when the bus is stationary. These requirements have been determined by the CHP to be the most appropriate set of conditions to specify when emergency lighting fixtures are required to illuminate, in order to fulfill the requirements of Section 27425 CVC and in the interest of passenger safety.

**New Subdivision** (a)(2) is necessary to specify required mounting locations of emergency lighting fixtures in specified buses as required by Section 27425 CVC. This subdivision provides prohibitions for the fixtures, including mounting locations which interfere with passenger ingress, egress, or comfort, and sharp edges or protrusions which may cause injury or damage. These requirements have been determined by the CHP to meet the requirements of Section 27425 CVC, while ensuring passenger safety and comfort related to installed emergency lighting fixtures.

**New Subdivision** (a)(2)(A) is added to permit the use of interior lighting as required by Title 13, California Code of Regulations (CCR), Section 1217 to fulfill the requirements for emergency lighting fixtures. This subdivision provides a reference to existing interior lighting requirements for vehicles transporting passengers. It clarifies that additional lighting fixtures

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need not be installed if current interior lamps, meeting the interior lighting requirements of Title 13 CCR, Section 1217, can fulfill the requirements of this section.

New Subdivision (a)(3) is added to clarify that emergency lighting fixtures, which illuminate automatically as specified in subdivision (a)(5), must remain illuminated until all passengers have exited or been evacuated from the interior of the bus. This is necessary to ensure the lighting is illuminated for a sufficient duration that would allow for all passengers to evacuate in the event of an impact or collision. This has been determined by the CHP to be the most effective standard to support improved interior visibility in support of safety, and effective facilitation of evacuation of passengers in the event of an emergency.

**New Subdivision** (a)(4) is added to provide a standard for the amount of illumination required to be provided by emergency lighting fixtures. The emergency lighting fixtures are to sufficiently illuminate the entire interior of the bus to facilitate passenger egress in the case of an emergency, including an emergency involving fire or smoke within the interior of the bus. This standard has been determined by the CHP to be a sufficient, minimum emergency lighting specification, which meets the intent and requirements of Section 27425 CVC.

New Subdivision (a)(5) is added to clarify and specify the conditions under which emergency lighting fixtures must illuminate automatically as the result of any collision, impact, or rollover condition; upon a force greater than five times that of gravity exerted on any passenger or the driver; or any force greater than the equivalent of a 10 mile per hour impact of the bus versus any stationary object. Each collision involves factors specific to the collision itself including, size and types of vehicles involved, speed of impact, and direction of travel. As such, based on collision investigation results and research conducted with the National Highway Transportation Safety Administration, the Department has determined a force greater than five times that of gravity or any force greater than the equivalent of 10 miles per hour to be reasonable thresholds that, when exceeded, would likely require passengers to egress from the vehicle, necessitating the illumination of emergency lighting fixtures. Conversely, this threshold is also established to discount minor collisions, such as low speed parking lot scuffs or bumps, from activating the emergency lighting fixtures, when passenger egress would not be needed. This clarification and set of conditions has been determined by the CHP to be the most effective set of standards to ensure emergency lighting fixtures installed in specified buses automatically illuminate to facilitate passenger evacuation in case of an impact or collision.

New Subdivision (a)(6) is added to provide specifications for the electrical powering requirements of emergency lighting fixtures required by Section 27425 CVC. The subdivision requires emergency lighting fixtures to be powered by at least one or a combination of three different methods including electrically self-powered, powered by the bus electrical system, or powered by an auxiliary electrical source. As a result, required emergency lighting must be electrically powered and may not take the form of lighting powered by any other source, such as lighting powered by chemical reaction. The CHP has determined this requirement for electrically powered emergency lighting to be the most effective to ensure consistency in illumination source and quantity, and ensure instant or near-instant bus interior illumination in the case of an emergency.

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New Subdivision (a)(7) is added to permit manual illumination in addition to automatic illumination required by subdivision (a)(5). This is necessary to permit manual illumination of required emergency lighting fixtures in order to clarify that the lighting fixtures are not limited to use in an emergency. Sufficient interior lighting of buses in support of passenger safety may be necessary or desired by passengers during events other than emergency egress. As a result, the CHP has determined permitting manual illumination of required emergency fixtures supports and facilitates passenger safety.

New Subdivision (a)(8) is necessary to specify that required emergency lighting fixtures must be installed in a manner consistent with any applicable Federal Motor Vehicle Safety Standards (FMVSS) in effect at the time of installation. This specification serves to clarify with which FMVSS installed emergency lighting fixtures must comply. The CHP has determined this requirement will ensure the most current, safest possible installation and type of emergency lighting fixtures possible, as outlined within the FMVSS. This specification effectively prohibits installation of emergency lighting fixtures which meet prior FMVSS specifications, but do not meet current FMVSS specifications at the time of installation.

**New Subsection** (b) is necessary to specify that buses defined in subsection (a) must be maintained to all FMVSS in effect at the time of bus manufacture. The subsection reiterates, in part, requirements contained in Section 27425(b) CVC in order to specify the FMVSS to which the bus must be maintained. Additionally, the subsection requires the bus to be maintained to the FMVSS upon implementation and continuously thereafter. This clarification has been determined by the CHP to be the most effective standard to ensure compliance with Section 27425(b) CVC.

**New Subdivision (b)(1)** is added to clarify that no person shall effect any change to a bus specified in subsection (a) which disables, removes, or renders ineffective any device or element of design required by any applicable FMVSS at the time of manufacture. This is necessary to make clear that no person may cause such change at any time, which will render the bus noncompliant with any applicable FMVSS. This requirement is necessary to make clear the requirements of Section 27425 CVC and has been determined by the CHP to be the most effective clarification to ensure compliance with statutory requirements in the interest of passenger safety.

### **ECONOMIC IMPACT ASSESSMENT/ANALYSIS**

## **Economic Impact on Business**

These regulations affect motor carriers and drivers that operate buses as defined in Sections 27425 and 34505.8 CVC and reiterated in proposed new Sections 1217.2(a) and 1263.2(a) of Title 13 CCR. All those on the departmental motor carrier interested party list are notified of proposed changes and given the opportunity to comment. It is assumed that both small and large businesses, as well as industry advocates, are included in this group, although the Department does not request nor maintain such data. Nothing in these regulations adversely impacts businesses which operate in compliance with applicable laws and regulations.

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A compliance cost for persons or businesses directly affected will have an impact on businesses, as outlined in the Economic and Fiscal Impact Statement that are not already in compliance with newly enacted statutory requirements. There is not a discernible impact on the level and distribution of costs and prices for large and small businesses. Businesses that manufacture charter buses will be encouraged to develop modified limousines that meet these new requirements.

Cost impacts on a representative private person or business:

The CHP contacted the PUC to obtain an estimate of the total number of charter-party carriers operating buses with a passenger capacity of 39 or more. The PUC conducted a query of their information which indicated California has 621 charter-party carriers operating buses with a passenger capacity of 39 or more. The CHP does not anticipate that number will change significantly as a result of these proposed regulations.

Businesses purchasing a charter bus manufactured on or after July 1, 2020, that does not meet the requirement for emergency lighting fixtures as specified by Section 27425 CVC, will be required to retrofit a system that meets the statutory and regulatory requirements. The CHP conducted an internet search to obtain an approximate cost needed to install emergency lighting fixtures that will automatically illuminate the interior of a bus as prescribed by proposed new Section 1263.2 of Title 13 CCR. The estimates for the total estimated cost ranged from \$624 - \$704 depending on vehicle configuration and vendor. This estimation was based on the total estimated costs of the system's parts of \$49-\$129, which includes: an inertia switch (\$30-\$50), lighting systems (\$3 per bulb to \$63 for an LED lighting kit), and wiring (100 foot roll of 14 gauge Wire at \$16 per roll). The CHP estimates approximately five hours of labor, required to install the lighting system at \$115 per hour. The \$115 per hour estimation for labor was based upon estimates the CHP obtained during the previous year for installation of Child Safety Alert Systems, which are similar in configuration.

Businesses that manufacture charter buses may incur additional costs to meet the standards and criteria for emergency lighting fixtures for buses manufactured on or after July 1, 2020. The CHP is unable to determine the exact manufacturer costs to install emergency lighting fixtures however, the CHP anticipates those costs to not be significant and be absorbed within the overall manufacture costs. Current prices of a new charter buses subject to these regulations, range from approximately \$134,800 to \$500,000 or more. The CHP does not anticipate the costs of the required emergency lighting fixtures to significantly affect the overall sale value of a respective charter bus. There is not a discernible impact on the level and distribution of costs and prices for large or small businesses.

The CHP contacted various safety video and materials production companies, including our own graphics and reproduction units, to obtain an estimate for the costs related to the development of safety instructions, including cost for production of written or video instructions for passengers as required by Section 34505.8 CVC. It is assumed that the choice between written or video instructions will be likely be determined by existence of available video systems installed in the charter bus. The CHP estimates a one-time cost for safety video production to range from \$10,000 to \$15,000. The CHP estimates the design cost of written instructions to be approximately \$415 and a print cost to be approximately \$0.16 to \$0.21 per

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copy. There will be some cost involved in training required for drivers of charter buses on the presentation of the instructions and demonstration of safety equipment and emergency features for passengers, however the CHP does not anticipate this cost to be significant.

#### Creation or Elimination of Jobs in the State of California

The CHP evaluated whether jobs would be affected in the State of California, and initial determination regarding this proposed regulatory action has been determined. There is no indication businesses operating vehicles utilized in charter bus transportation, as specified in Sections 27425 CVC or 34505.8 CVC, will result in hiring more personnel. It is not anticipated it will lead to layoffs or downsizing as a direct result of this rulemaking action. Due to the fact this proposed rulemaking is merely providing the necessary safety specifications for the installation and use of emergency lighting fixtures for charter buses, as well as clarifying standards and criteria for the instructions provided to passengers on the safety equipment and emergency exits on the vehicle prior to the beginning of a trip, this proposed rulemaking will have little impact on jobs. Therefore, the determination is it will neither create, nor eliminate jobs in the State of California, nor result in the elimination of existing businesses, or create or expand businesses in the State of California. This proposed regulatory action will not have a significant statewide adverse economic impact directly affecting businesses, including the ability of California businesses to compete with businesses in other states.

#### Creation, Expansion, or Elimination of Businesses in the State of California

The CHP evaluated whether businesses would be affected in the State of California. No adverse impact was identified. As mentioned above, this proposed rulemaking is stipulating the necessary safety specifications for the installation and use of emergency lighting fixtures for charter buses, as well as clarifying standards and criteria for the instructions provided to passengers on the safety equipment and emergency exits on the vehicle prior to the beginning of a trip. Additionally, the CHP has made the initial determination this proposed regulatory action will not affect the creation of new businesses, the expansion of existing businesses, or the elimination of existing businesses.

#### **Benefits of the Regulation**

The CHP evaluated the potential benefits of this proposed regulatory action. This proposed regulatory action, added as a response to an existing statute, will provide a nonmonetary benefit to the protection and safety of public health, employees, and the environment. The regulations will clarify new safety requirements that will protect users of charter buses from catastrophic incidents like the one that occurred in 2014. These standards will meet a critical public safety need by ensuring that design of emergency lighting fixtures, as well as safety instructions provided to passengers, will facilitate the evacuation of passengers in an emergency.

The CHP has made an initial determination regarding this proposed regulatory action:

- Will have no effect on housing costs;
- Will impose no new mandate upon local agencies or school districts;

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- Will involve no nondiscretionary cost or savings to any local agency, no cost to any local
  agency or school district for which Sections 17500-17630 of the Government Code require
  reimbursement, no cost or savings to any state agency, nor costs or savings in federal
  funding to the state;
- Will neither create or eliminate jobs in the State of California, nor result in the elimination of existing businesses, nor create or expand businesses in the State of California;
- Will have no significant statewide adverse economic impact directly affecting businesses, including the ability of California businesses to compete with businesses in other states; and
- Will continue to provide a nonmonetary benefit to the protection and safety of public health, employees, and safety to the environment by contributing to the safe operation of vehicles.

#### RESULTS OF THE ECONOMIC IMPACT ANALYSIS/ASSESSMENT

The CHP concludes this proposed regulatory action: (1) is unlikely to create additional jobs, nor eliminate any jobs in the State of California; (2) is unlikely to result in the elimination of existing businesses, nor create or expand businesses in the State of California; (3) will continue to provide a nonmonetary benefit to the protection and safety of public health, employees, and the environment. The changes to the application of the regulation are a response to existing statute.

# EVIDENCE SUPPORTING FINDING OF NO SIGNIFICANT STATEWIDE ADVERSE ECONOMIC IMPACT DIRECTLY AFFECTING BUSINESS

Although the proposed action *will* directly affect business statewide, including small business, the CHP concludes that the adverse economic impact, including the ability of California business to compete with businesses in other states, *will not* be significant.

The CHP does not anticipate the costs of the required emergency lighting fixtures to significantly affect the overall sale value of a respective charter bus. There is not a discernible impact on the level and distribution of costs and prices for large or small businesses. There will be some cost involved in training required for drivers of charter buses on the presentation of the instructions and demonstration of safety equipment and emergency features for passengers, however the CHP does not anticipate this cost to be significant. Therefore, the proposed regulations will not have a significant statewide adverse economic impact directly on motor carriers and drivers that operate buses as defined in Sections 27425 and 34505.8 CVC. See discussion above.

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# FISCAL IMPACT TO THE STATE

The CHP has determined these regulation amendments will result in:

- No significant increase in costs for owners or operators of vehicles. The CHP anticipates that the cost of the emergency lighting fixtures to be absorbed within the overall manufacture cost of charter buses that are manufactured on or after July 1, 2020;
- No significant compliance cost for persons or businesses directly affected;
- No discernible adverse impact on the quantity and distribution of goods and services to large and small businesses or the public;
- No impact on the level of employment in the state; and
- No impact on the competitiveness of this state to retain businesses.

# **ALTERNATIVES**

The CHP has not identified or been made aware of an alternative which would be more effective and less burdensome for the purpose for which this action is proposed, would be as effective and less burdensome to the affected private persons for the purposed action, or would be more cost effective to affected private persons and equally effective in implementing the statutory policy or other provision of law.

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